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ABSTRACT

Examined were the number and type of questions asked by the teachers of six high school social studies classes, three of whom knew which children had been identified as perceptually handicapped. Observers noted whether questions were of a cognitive-memory, convergent, divergent, or evaluative nature. Results suggested that teachers ask children with learning problems questions at a different level than they ask nonperceptually handicapped children regardless of whether the teacher is aware of the children's problems. It also appeared that when regular classroom teachers know they have some children with learning problems in their classes, not only do they change the level of questions they ask these children, but they change the level of questions they ask all children. Teachers who knew they had perceptually handicapped students in their classes asked significantly fewer questions of all their students than did teachers without this knowledge. (Author/DB)

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Level of Question as a Function of Teacher Knowledge of Perceptual Handicaps

Mary Agnes Leahy

Teacher-student interaction in the classroom is primarily verbal, with much of this verbal behavior taking the form of question and answer recitations.

Several investigators have attempted to determine what types of questions most effectively induce different kinds of student learning. Hunkins (1968), for example, found that when analysis-evaluation questions were stressed, students scored higher on tests containing these types of questions. His study, and others, suggest that students exposed to certain types of questions will be better able to deal with similar questions in the future. While over 50 systems (Simon and Boyer, 1968) for observing classroom interaction have been developed, most are universal systems, which consider all students in a class as a single unit. Good and Brophy (1971) pointed out the weakness of this design, and have demonstrated the importance of dyad (teacher-individual student) analyses, particularly as they relate to differences between children.

With the majority of children with learning problems spending most of their school time in regular classes, and with greater awareness, on the part of regular classroom teachers of the existence of these problems, it would seem classroom interaction involving children with problems needs careful study. It was the purpose of the present investigation to determine whether teachers, when addressing children with specific learning disabilities, ask questions that are different than questions addressed to others

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in their class. Further, if teachers know children have specific learning problems is their questioning different than when they are ignorant of these problems?

Procedures

Six social studies classes, containing 97 students, in a suburban high school were chosen as the experimental units for this study. All students in these classes received the Group Bender Visual Motor Gestalt Test (GBVMGT) following the procedures developed by Caskey (1973). The tests were scored following the Koppitz Developmental Scoring System (1964). Twenty-nine of the students had one or more points (mean = 1.66) and sixty-eight had scores of zero. Students with one or more points were designated as having some visual-fine motor problem.

Three of the teachers, randomly selected, were given information about the scores of their students; the other three teachers did not have knowledge of the test results.

Three class periods for each of the six teachers were observed and certain classroom interactions were recorded. Each question asked by the teacher was recorded on a blank seating chart according to where the question was directed. Following the classification system developed by Aschner and Gallagher (1963), based on the 'operations' level of Guilford's (1956) Structure of the Intellect, indication was made whether the question was Cognitive-Memory (CM, Convergent (C), Divergent (D), or Evaluative (E).

The names of the students and their scores on the GBVMGT were then matched to the seating charts to allow analysis of how many of each level of question were asked of each student.

The data was analyzed in a four-way factorial analysis of variance with two repeated measures.

Results

Teachers who were told that some students in their classes had been identified by the GBVMGT as having perceptual motor difficulties asked significantly ($p. < .05$) fewer questions of their classes than did teachers who were not made aware that they had students with such problems. Teachers who had been told that some children in their classes had perceptual motor handicaps asked significantly ($p. < .05$) fewer evaluative questions than teachers without such knowledge: They also asked more cognitive-memory and divergent questions, and fewer convergent questions of their classes, although these differences were not significant.

Knowledge of the presence of children with perceptual handicaps did not significantly effect ($p. < .05$) the number of questions asked of identified perceptually handicapped children when compared with the number of questions asked of students not so identified. There were differences in the levels of questions asked of the children. Teachers generally, asked perceptually handicapped students more ($p. = .055$) evaluative and convergent

questions and fewer cognitive memory and divergent questions than they did of non-perceptually handicapped students.

The interaction of teacher knowledge with level of question was significant ($p. = .0027$). Teachers who had knowledge of the presence of perceptual handicaps among their students asked handicapped children significantly fewer evaluative and more convergent questions than did teachers without knowledge. Teachers without knowledge of the presence of perceptual handicaps among their students asked fewer cognitive memory questions of perceptually handicapped students. The results also suggest that teachers with knowledge that perceptually handicapped children are present ask fewer evaluative questions of non-perceptually handicapped students than do teachers who are not aware that they have students with perceptual handicaps.

The data in the present study, though limited to high school social studies classes in only one school, suggest teachers ask children with learning problems questions at a different level than they ask non-perceptually handicapped children regardless of whether the teacher is aware of the children's problems or not. It also appears that when regular classroom teachers know they have some children in their classes who have problems, not only do they change the level of questions they ask these children, but they change the level of questions they ask all children.

It would appear, if the present results are replicated in additional subject matter areas, with children of different grade levels, and, perhaps, for other types of handicaps, there may be meaningful implications both for teacher training practices and the use of 'integration' or mainstreaming.

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